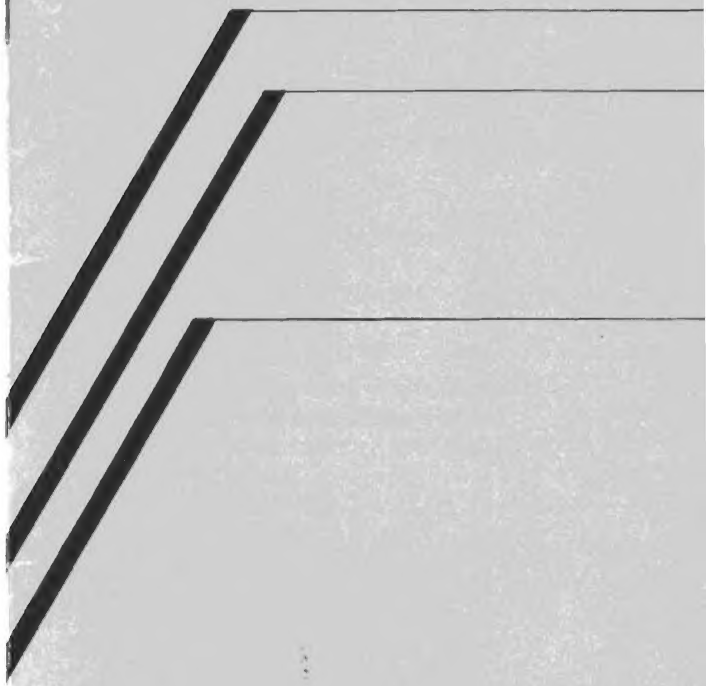
CELLULARONE®

832 CO-IIe



CELLULAR CAR TELEPHONE

OWNER'S OPERATING INSTRUCTIONS

CELLULARONE®

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CELLULAR ONE
832 CO-Ⅱe

Congratulations... By choosing the Cellular One® 832 CO-Ⅱe cellular telephone, you have joined the thousands of satisfied customers who are enjoying the benefits and quality performance that only a Cellular One telephone can provide.

Your Cellular One 832 CO-Ⅱe has been designed to meet the same standards of quality that have made Cellular One a leader in the communications field.

This fourth generation cellular telephone combines leading edge technology with the latest in high-tech design to bring you the most advanced array of features in the industry. The styling of the 832 CO -Ⅱe handset is sleek and trim and the transceiver is micro sized. The "Quick" Key allows you to directly access Cellular One's network services such as voice mail. The large, easy to read alpha numeric display lets you store and recall up to 99 phone numbers, while automatic number storage eliminates the problem of accidentally writing over a previously stored number. Alpha search allows you to recall the phone numbers by either name tag or memory number.

For increased safety, one-touch dialing allows you to concentrate on the road while calling your most frequently dialed numbers. The auto answer feature will automatically answer the phone after the second ring if you choose (for totally hands-free enjoyment of your cellular phone) or with the Any Digit Key Answering Feature, you may answer your incoming calls by pressing any of the digit keys on the keypad! The phone will access 911 emergency calling even if locked or in the restricted mode.

Your 832 CO-Ⅱe also includes an RJ11 Jack which allows the phone to be interfaced with a laptop computer or fax machine. Multi-city registration enables you to save on roaming charges by registering your phone in as many cities as you'd like.

To make cellular communications even more convenient, the 832 CO-Ⅱe can be converted into a transportable phone with the addition of the optional miniconversion kit. The flexible mounting system also allows for the phone to be installed in a second vehicle if desired.

For all of its high tech sophistication, the Cellular One 832 CO-Ⅱe cellular telephone is surprisingly easy

to use. At the touch of a button, its built-in owner's manual is on the screen for your use. You can then scroll through the features to see which keys will access them.
The Cellular One 832 CO-lle is a no nonsense, high quality instrument, rugged enough to withstand off road use as well as high speed freeway vibration. On the following pages we will describe the unit's functions and components to help you make the most efficient use of this high-tech marvel.

FEATURES AND OPTIONS

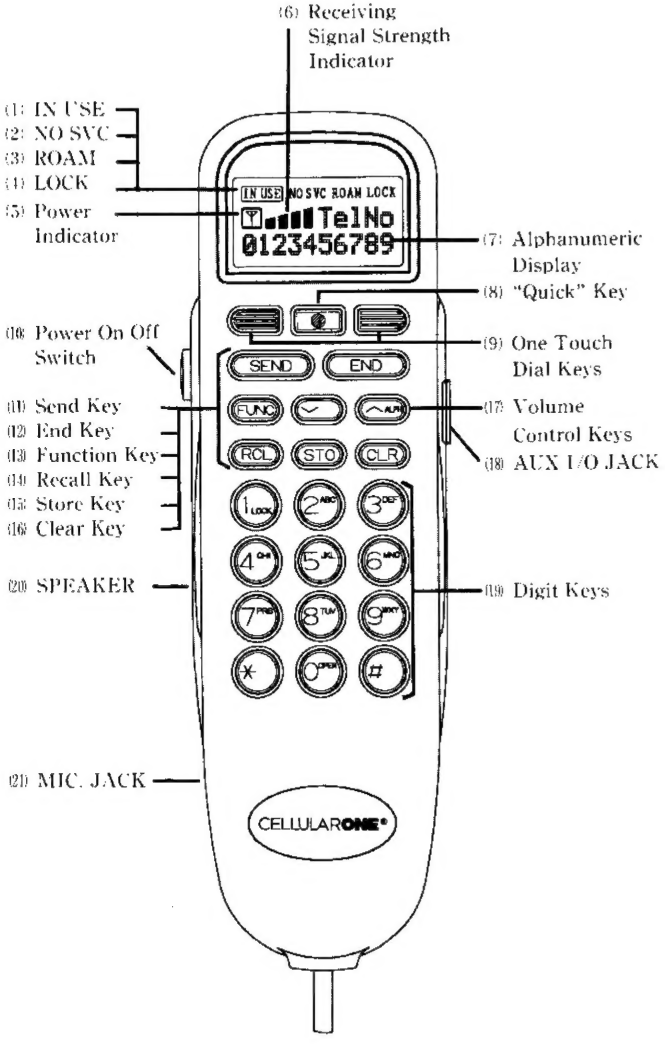
- Push Button Dialing
- Backlit Keypad and Display with ON/OFF Control
- Large Size Dot-matrix LCD Display
  Status/Function Indicator
  15-Digit Dial Number
  Receiving Signal Strength Indicator
- Power up Name Tag
- Pre-set Dialing up to 16 Digits
  (32 Digits : NAM Option)
- Extended Readability
- Last Digit Clear
- Digit Display Clear
- On-Hook Dialing
- 911 Emergency Call in all modes
- Repertory Dialing : 16 Digits 99 Memories
- Repertory Memory Scroll
- Automatic Storing into a Vacant Memory Address
- Secret Memory
- Memory Name Tag
- Alpha Search
- Link Pre-set Dialing from Memory
- One Touch Link Dialing
- One Touch Dialing
- Any Digit Key Answering (NAM Option)
- Last Number Redial
- Automatic Redial (NAM Option)
- Last Number Review
- Mute or Hold
- Call Restrictions (NAM Option)
- Silent Incoming Calls
- Scratch Pad Dialing (with/without keying Tones)
- End-to-End Signaling
- Touch Tone™ from Memory
- Continuous DTMF from Keypad
- Call in Progress Protection
- Automatic Answering
- AUX I/O JACK for Data Transmission
- Call Time Display (Five Functions)
- Hands-free Operation (NAM Option)
- Automatic Horn Alert (NAM Option)
- Automatic Calls in Absence Indicator
- Safety Timer (NAM Option)
- Display Own Telephone Number
- Multiple A/B System Selection
- System Inhibit (NAM Option)
- Multiple City Registration
- Last Rescan SID Indicator
- RF Channel Indicator
- Electronic Lock
- Automatic Lock (NAM Option)
- Function Review
- Rear Seat Extension (Option)
- Flexible Mounting

GENERAL SPECIFICATIONS

(subject to change without notice)

Frequency Range:		824 to 849 MHz Transmit 869 to 894 MHz Receive
Number of RF Channels:		832 Full Duplex
Channel Spacing:		30 kHz
Duplex Spacing:		45 MHz
Frequency Stability:		±2.5 PPM
Operating Temperature:		− 30℃ to + 60℃
Supply Voltage:		13.7 V DC+20%, Negative Ground
Current Drain:		approx. 1.5 A in use, 0.2A standby
Size:	Transceiver:	26H×210W×150D(mm) 1.02H×8.27W×5.90D(inches)
	Telephone Unit:	63H×60W×200D(mm) 2.48H×2.36W×7.87D(inches)
Weight:	Transceiver:	approx. 1.0kg(2.21lbs)
	Telephone Unit:	approx. 0.4kg(0.88lbs)
RF Power Output:		3 watts (50 ohms)

TELEPHONE UNIT FUNCTIONS



(1) [IN USE] indicator lights when a call is in progress.

(2) [NO SVC] (no service) indicator lights when the unit is in a non-coverage area.

(3) [ROAM] indicator lights when the unit is out of the home area.

(4) [LOCK] indicator lights when the unit is locked.

(5) [Y] is used as a POWER ON indicator which lights when the unit is on.

(6) RECEIVING SIGNAL STRENGTH INDICATOR: The number of shaded blocks indicates the Received Signal Strength.

(7) 15-CHARACTER FUNCTIONAL ALPHANUMERIC DISPLAY:
The first 5 characters indicate current function and status conditions.
The remaining 10 characters show the last 10 digits of the dialed number.

(8) [●] ("Quick" Key) permits you to access Various Cellular One services.

(9) ONE TOUCH DIAL KEYS permit you to place a call by a single key stroke.

(10) [POWER] (power on/off switch) is used to turn the unit on/off.

(11) [SEND] (send key) for placing or receiving a call.

(12) [END] (end key) terminates a call.

(13) [FUNC] (function key) shifts the digit keys to the functional keys.

(14) [RCL] (recall key) recalls phone numbers from repertory memory.

(15) [STO] (store key) stores phone numbers in repertory memory.

(16) [CLR] (clear key) clears the digit(s) from the display.

(17) [V], [Λ] (volume control keys) control Loudspeaker and Earpiece audio level as well as Alert tone.
[V]: Lower, [Λ]: Louder

(18) AUX I/O JACK for Data Transmission.

(19) DIGIT KEYS to enter a phone number.

(20) Built in Loudspeaker.

(21) MICROPHONE JACK for HANDS-FREE.

BASIC OPERATION

Turning the Unit On

With the ignition switch at "ON" or "ACCESSORY", press [POWER]. The indicator [Y] will light (all indicators will light momentarily; display will show the programmed Name or your phone number, and a tone will be heard).

● Signal Strength Indicator

The number of the shaded blocks indicates the Signal Strength in your area. Four blocks show the maximum level. The display will vary as your car moves. If the signal is not strong enough to place a call, the [NO SVC] indicator will appear on the readout.

To Store a Number in Memory

1. Press [CLR], then enter the phone number.
2. Press [STO], then enter the memory address (01 through 99).

Example: Press [STO], key [1] then [5], the displayed number will be stored into memory address 15.

To Recall a Number from Memory

Press [RCL], then enter the memory address (01 through 99).

Example: Press [RCL], key [1] then [5], the number stored in memory address 15 will be displayed on the readout.

To Review the Prefix

(Number Longer than 10 digits)

After pressing [RCL], hold down the second digit of the memory address.

Note: When a set of linked numbers is recalled, you can review only the last linked number with this feature. To review Link 1 to Link 5, use [FUNC], [RCL] then key [X] (X is 1 to 5). Refer to "Link Dialing".

Last Number Review

Press [RCL], key [0] then [0] again, the last number used will be displayed.

Display Own Telephone Number

You can see your own phone number on the readout. Press [RCL], key [✱] then [✱] again.

Repertory Memory Scroll

This feature is useful in finding a certain phone number by scrolling the repertory memory from one of the designated starting addresses.

1. Press [RCL], key [X] then [#].
   [X] is the digit used to assign the starting address as follows.

X	Starting address
0	01
1	11
2	21
·	·
·	·
·	·
8	81
9	91

2. Press [#] or [✱].
   [#] : Scroll upward (with roll back to 01)
   [✱] : Scroll downward (with roll up to 99)
   Memory address and the last 7 digits of the stored number will be displayed on the readout as follows.
   Example: [3][1]–[1][2][3][4][5][6][7]
   Address-No. Tel. No.

Note: In this scroll feature, any vacant memory address(es) will be skipped.

Automatic Storing into a Vacant Memory Address

This feature allows automatic storing into a vacant repertory memory address. This ends the possible problem of writing over a previously stored number.

1. Enter the phone number.
2. Press [STO].
3. Enter a memory address group number in which you want to store a number.
   [0] : From 01 to 10
   [1] : From 11 to 20
   [2] : From 21 to 30
   · ·
   · ·
   · ·
   [8] : From 81 to 90
   [9] : From 91 to 99
   [#] : From 01 to 99
4. Press [#].
   The memory address and the last 7 digits of the

stored phone number will be displayed on the readout as follows.

Example: [3][1][−][1][2][3][4][5][6][7]

Note : If there is no vacant address in the assigned area, the phone number will not be stored in the memory.

Secret Memory

This feature allows you to store ID codes, telephone credit card numbers, etc. in secret memory locations. For security purposes, you must enter your three-digit security code to display the secret number. For practical use of the secret memory, refer to "END-TO-END SIGNALING".

To Store the Secret Number

1. Press [CLR], then enter Secret Number.
2. Press [FUNC], [STO], then enter the memory address (01 through 99).
   [ ][ ][ ][S][E][C][R][E][T][ ] will be displayed on the readout.

Example: To store the secret number 9876 into memory address 41 or automatically store this number into a vacant memory address of 40's.

1. Press [CLR].
2. Enter secret number; [9][8][7][6].
   [ ][ ][ ][ ][ ][ ][9][8][7][6]
3. Press [FUNC], [STO]. (secret memory store)
   [ ][ ][ ][ ][ ][ ][9][8][7][6]
4. Press keys [4], [1]. (address number)
   [ ][ ][ ][S][E][C][R][E][T][ ]

   or

   press keys [4], [#]. (to store into a vacant memory address of 40's)
   [4][1][−][S][E][C][R][E][T][ ]

To Confirm the Secret Number

1. Enter the three-digit security code.
2. Press [RCL], then enter the memory address (01 through 99). The last 10 digits of the secret number will be displayed on the readout.

Example: To confirm the secret number stored into memory address 41.

1. Enter the three-digit security code: [1][2][3].
   [ ][ ][ ][ ][ ][ ][ ][1][2][3]
2. Press [RCL], key [4] then [1].
   [ ][ ][ ][ ][ ][ ][9][8][7][6]

Note: If you try to recall the secret memory without the three-digit security code, the secret number will not be displayed. The call will not be placed. The display will read as follows.

Press [RCL], key [4] then [1].
[ ][ ][ ][S][E][C][R][E][T][ ]

or

Press [RCL], key [4] then [#].
[4][1][−][S][E][C][R][E][T][ ]

To Lock the Unit

Press [FUNC], then key [1] (LOCK).
The [LOCK] indicator lights. The unit will remain locked until unlocked, even if the power is turned off.

Automatic Lock (NAM Option)

If you request the feature of Automatic Lock, your NAM can be programmed so that your unit will automatically go into the lock mode when the power of the unit is turned "off". When [POWER] is turned "on", the unlock code is required to operate the unit.

To Unlock the Unit

Enter the three-digit unlock code. The [LOCK] indicator will go out when the three-digit code is the same as the code registered in the NAM.

Backlighting On/Off Control

LCD display and the keypad are backlit automatically after the Power-On. If needed, backlighting can be turned off by pressing [RCL], key [✱] then [5].
Even if the unit is in the backlighting "Off" mode, the backlighting will be turned on again automatically for 10 seconds when any key operation is performed or a call is received.
To return to the backlighting "On" mode, press [RCL], key [✱] then [5] again.

Volume Control

The audio level of the loudspeaker, earpiece and the alert tone can be adjusted by the Volume Control keys ([∧] and [∨]).

- Loudspeaker: Leave the handset on the cradle:
  To increase—Keep pressing [∧] key until you get the desired sound level.
  To decrease—Keep pressing [∨] key until you get the desired sound level.

Sound level will be displayed on the readout digitally during the level adjustment and the sample tone will

indicate the sound level when you are not engaged in a telephone conversation. The display format is as follows:

SPK [ ][ ] (1 to 10)

- Handset: Lift the handset and perform the same manner as above.
  In this case, the display format is as follows:
  H.S [ ][ ] (1 to 10)
- Alert Tone: Press [RCL], key [✱] then [6].
  Then adjust the alert tone level in the same manner as above. Your telephone will ring at the new level.
  In this case, the display format is as follows:
  ALT [ ][ ] (1 to 10)

MEMORY NAME TAG

This feature permits you to tag an identifying name (up to 5 characters) to each phone number in the memory address. The name will be displayed each time you recall a number from memory address.

To Enter Names using Alpha (Letters)

1. Press [FUNC], then [∧]. [Alpha] will appear on the readout to indicate Alpha Mode is active.
2. Press digit keys repeatedly until the character you need appears. The following table shows which character can be assigned with each digit key.

KEY	ASSIGNED ALPHA CHARACTERS				
1	(Blank)	.	–	1	
2 (A B C)	A	B	C	2	
3 (D E F)	D	E	F	3	
4 (G H I)	G	H	I	4	
5 (J K L)	J	K	L	5	
6 (M N O)	M	N	O	6	
7 (P R S)	P	Q	R	S	7
8 (T U V)	T	U	V	8	
9 (W X Y)	W	X	Y	Z	9
0	0				
✱	✱				
#	#				

3. When the character you need is displayed, press [∧] to move to the next space.
4. Go back to step 2, and repeat the same procedures until the complete character name is displayed.
5. When an entry error is made, press [CLR] momentarily to erase the last character. If you press [CLR] more than a second, all characters on the readout will be erased.
6. To exit Alpha Mode, press [FUNC], then [∧].

To Store Name with Phone Number

1. Enter the phone number.
2. Press [FUNC], then [∧] to set Alpha Mode.
3. Enter the name you need. (Refer to "To Enter Names using Alpha".)
4. Press [STO], then enter the memory address (01 through 99), to store the number with the name into memory.

Note: If you enter the phone number after entering the name, the name will be erased.

Example: To store the phone number 123 4567 with the name JOHN into memory address 15.

1. Enter the phone number ; [1][2][3][4][5][6][7].
2. Set Alpha Mode; [FUNC][∧].
3. Enter the Name; [5][∧][6][6][6][∧]
   (J) (O)
   [4][4][∧][6][6][∧].
   (H) (N)
4. Store the Number; [STO][1][5].

To Recall from Memory with Name

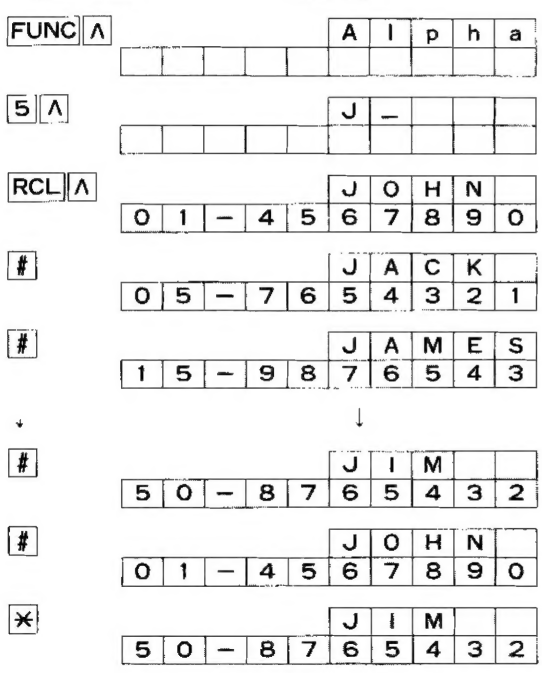
Recalling from the repertory memory with name is identical to standard repertory recall. When the number is recalled, the display will show the Alpha Name Tag as well as the stored phone number.

ALPHA SEARCH

This feature permits you to find a phone number stored in the memory by the first character of the Alpha Name Tag. This search can retrieve all entries beginning with the assigned initial character.

1. Press [FUNC], then [∧] to set Alpha Mode.
2. Enter the initial character, by which you need to search the phone number. Then press [∧].
3. Press [RCL], then [∧]. The display will show the first entry whose Name Tag begins with the assigned initial character, and which is stored in the lowest memory address. Display shows Name Tag, Memory Address and Phone Number.
4. Press [#] or [✱].
   [#] : Scroll memory address upward.
   [✱] : Scroll memory address downward.

Example:



PLACING TELEPHONE CALLS

To Place a Call

1. Enter the phone number with the handset on or off the cradle. The last 15 digits of the dialed number are displayed on the readout.
   Note: After 120 sec., display will return to the 10-digit display mode.
2. If a dialing error is made, press [CLR], then enter the phone number again. Pressing [CLR] momentarily (less than approx. 0.5 sec.) clears only the last digit.
3. Press [SEND]. The [IN USE] indicator will light. You may lift the handset either before or after the called party answers to proceed with your conversation.

Note: If assigned in NAM, the phone number can be pre-set up to 32 digits. However, in this case it is necessary to confirm with system operator whether such service is available or not.

If the Call Fails to Go Through

1. If you hear the "reorder" signal, press [END], then if there were no dialing errors, press [SEND] for redial. (Redialing with digit keys is not necessary.)
2. If the "intercept" signal is heard, press [END], then redial the correct number.

Automatic Redial (NAM Option)

If the feature of Automatic Redial (NAM Option) is selected, your unit will automatically make five attempts to reach the cell site if the first try is not successful. The [IN USE] indicator will stay on, but the speaker will be muted for twenty seconds.
This is done so that you do not hear the reorder signals from the loudspeaker. If you need to terminate the automatic redial, press [END].

Terminating a Call (Hanging Up)

Press [END], or replace the handset on the cradle.
The [IN USE] indicator will go out.
If Hands-free is activated in NAM, you have to press [END] to terminate a call.

To Receive Calls

1. When the telephone rings, lift the handset or press [SEND] to answer the call. The [IN USE] indicator will light.
2. If the handset is off the cradle when ringing starts, press [SEND] to answer a call.

To Place a Call with a Number in the Memory

1. Press [RCL], then enter the memory address (01 through 99). The last 10 digits of the number will appear on the readout. If the number is longer than 10 digits, hold down the second digit of the memory address (after pressing [RCL])to see the prefix.
   Note: Refer to "To Recall a Number from Memory" and "To Review the Prefix" for more details.
2. Press [SEND]. The [IN USE] indicator will light as the call is placed.

911 Emergency Call (NAM Option)

This feature permits you to place an emergency call (911) even if your telephone unit has been set to the Lock Mode or Call Restricted Mode.

Operation in Lock Mode

1. Enter the emergency call number (911); [9][1][1]. ("911"is not indicated, but the [LOCK] indicator will light.)
2. Press [SEND], the [IN USE] indicator will light.
3. To terminate the call, press [END]. (The [IN USE] indicator will go out.)

Operation in Call Restriction Mode

The operation and display are the same as in the normal mode.

Silent Incoming Calls

This feature alerts you visually of an incoming call by flashing [CALL] on the readout instead of hearing the Alert Tone.

1. Press [RCL], key [*] then [7]. The [S. ALT] will appear on the readout.
2. When a call is received, the unit indicates it by flashing [CALL] on the readout without Alert Tone.
3. Press [SEND] to answer the call. [CALL] on the readout will go out.
4. This mode is deactivated by pressing [RCL], key [*] then [7] again.
5. If the Silent Incoming Calls is activated when the unit is powered up, [S.ALT] will appear on the readout for 5 seconds.

Any Digit Key Answering (NAM Option)

This feature permits you to answer an incoming call by pressing any of the digit keys on the keypad.

Automatic Answering

With this feature, the incoming call will be automatically connected after two alert tones, and the [IN USE] indicator will appear in the display. At that point, the unit is ready for Hands-Free operation.

1. Press [FUNC] and then key [5]. [A. Ans] will appear in the display.
2. This mode is deactivated when [FUNC] and then key [5] are pressed again.
3. This feature will not function if the handset is off the cradle or if the unit is in the following modes:
   1) Locked
   2) Automatic Horn Alert
   3) Automatic Calls in Absence Indicator
   4) Automatic Answer Fax Data
   5) Silent Incoming Calls

4. If the Automatic Answering is activated when the unit is powered up, [A.Ans] will appear on the readout for 5 seconds.

To Mute a Phone Conversation

1. Press [FUNC], then key [8]. [Mute] will appear on the readout. Then the transmit audio will be muted and the receive audio will be heard from the loudspeaker. You may converse privately with a passenger during a call with the handset on or off the cradle.
2. To return to normal conversation, press [FUNC], then key [8] again or lift the handset.
3. Mute is reset when call is terminated.

Call in Progress Protection

Phone conversation will continue until call is terminated, even after ignition switch is turned off.

ONE TOUCH DIALING

This feature permits you to place a call by a single key stroke.

To Store a Number into One Touch Memory

1. Press [CLR], then enter a phone number.
2. Press [STO], then one of the two One Touch Keys. Stored numbers can be reviewed by pressing [RCL], then the One Touch Key you want to review.

To Place a Call to a Number in One Touch Memory

Press the One Touch Key for approx. 0.5sec..
The last 10 digits of the number will be displayed on the readout, and the [IN USE] indicator will light as a call is placed.

ONE TOUCH LINK DIALING

This feature permits you to access, through telephone lines, a computer system and send DTMF number codes in sequence. Up to five numbers can be stored and are sequentially accessed with one touch of the "Quick" Key. The first number is sent in digital form to the cell site, then up to four other numbers are sent with DTMF signaling.

Storing Numbers

Store the numbers to be linked into the special memory address 91 through 95. Each number should be within 16 digits.

Placing a Call

Press [●] "Quick" key for approx. 0.5 sec. .The first number in memory address 91 will appear on the readout and will be sent digitally to the cell site. After you hear the signal from the Operating Office, press [●] "Quick" key again. The second number in memory address 92 will appear on the readout and is sent with DTMF tones. You will monitor the tones through the loudspeaker.

The third through fifth number in memory address 93 through 95 can be accessed sequentially in the same manner as above.

CALL RESTRICTIONS (NAM OPTION)

This feature permits you to impose various kinds of restricted on Outgoing Calls.

To Set Call Restricted Mode

Enter the three-digit security code, then press [FUNC], key [#] then [7].

The following key operation is needed to activate one of the restricted modes:

[1]: Only phone numbers having 11 digits or less are accepted. Operator assisted dialing is prohibited.

[2]: Only phone numbers having 7 digits or less are accepted. Operator assisted dialing is prohibited.

[3]: Operator assisted dialing (0 Origination) is prohibited.

[4]: No phone calls can be placed except for repertory dialing from memory address 01 to 09. However, emergency call with "911" are available.

[5]: Only One Touch dialing is permitted. However, emergency calls with "911" are available.

[0]: No restriction.

To Exit Call Restriction Programming Mode

Press [FUNC], then [CLR].

Note(1): When in restricted mode 4 and 5, number storage into the memory will not be permitted.

Note(2): In the restricted mode, a short beep tone will be heard to inform you of the improper operation, and the word [Restricted] will be shown on the readout.

HANDS-FREE OPERATION (NAM OPTION)

This feature permits you to engage in a conversation without lifting the handset.

1. After receiving a call (press [SEND] to answer), conduct the conversation via the hands-free microphone with the handset on the cradle. To converse more naturally:
   a. Speak in a normal tone.
   b. Turn off the radio or stereo and close the car windows.
2. To place a call, enter the phone number, then press [SEND]. The microphone will be turned on, ready for conversation when your party answers.
3. After a call is completed, Press [END] to terminate the call.

Note: If you hear feedback on a bad RF Channel, adjust the hands-free loop attenuation as follows.
   1) Press [FUNC], key [7] then [2]. Hands-free loop attenuation will be increased by 14 dB.
   2) To return to the normal condition, press [FUNC], key [7] then [1].

END-TO-END SIGNALING

This feature permits you to utilize additional phone services, such as accessing an alternate long distance network, signaling a pager, or banking by phone etc.. For these services the signaling should be in DTMF (Touch Tone™). The following two features will make it easier to send in DTMF codes.

Note: When you use this feature with a secret number, the number must be previously stored in a memory address. (Refer to "To Store the Secret Number".)

Touch Tone™ from Memory

DTMF signaling by repertory dialing is available while engaged in a telephone conversation.

1. Press [RCL][RCL], then enter the repertory memory address (01 through 99). The last 10 digits of the number will appear on the readout.

   Note: However, if the memory address entered has been set as a secret memory, [S E C R E T] will be displayed on the readout instead of the number.

2. Press [SEND]. Then DTMF signaling will be placed and the DTMF tone can be monitored through the loudspeaker.

Note: Continuous DTMF from keypad can be manually dialed as well to access answering machines when engaged in a telephone call.

Link Dialing

(Includes Secret Memory Locations)

This feature permits you to pre-set from repertory memory or the keypad up to five numbers before placing a call. With this feature, the first number is sent in digital form to the cell site. Then up to four other numbers can be sent with DTMF signaling by simply pressing [SEND] for each additional number.

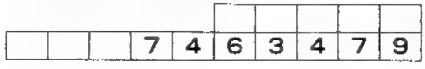
Note(1): Each number to be linked may be recalled from memory or entered by keypad.

Note(2): Each number to be linked should be within 16 digits including linking mark "=" at the end.

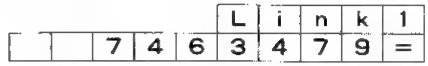
Note(3): Linked number can be stored in the memory. However, the total number of digits must be less than 16 digits. The numbers of more than 16 digits should be stored into memory address 96 through 99.

Example: To access the alternate long distance service using a secret number, you should call your long distance service office first, and enter your ID number, then the phone number to be placed.

1. Recall the phone number of the long distance service office.
   Press [RCL], then enter the memory address (01 through 90 and 96 through 99)



2. Press [FUNC], then key [✱].
   Linking Mark "=" will be added at the end of the number and [Link 1] will appear.

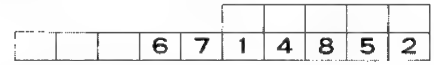


3. Recall your ID number stored in secret memory.

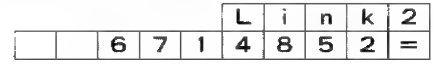
3-1. Enter the three-digit security code.
   Press keys [1], [2], [3].

   Note: When you recall the ID number stored without secret memory, omit step 3-1 and proceed to next step 3-2.

3-2. Recall your ID number.
   Press [RCL], key [4] then [1].

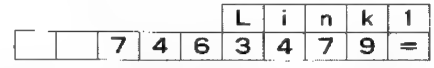


4. Press [FUNC], then key [✱].



5. Recall or dial the phone number to be called.
   Press [RCL], then enter the memory address (01 through 90 and 96 through 99) to recall the phone number to be called.

6. Press [SEND]. The [IN USE] indicator will light as the call is placed. [Link 1] will appear on the readout.



7. After you received an answer from the long distance service office, press [SEND] again. The DTMF signal will be placed and the DTMF tone of your ID number can be monitored through the loudspeaker. [Link 2] will appear on the readout.
8. If your ID number is accepted, the long distance service office will answer again, so press [SEND]. Then the long distance call will be placed and the DTMF tone can be monitored through the loudspeaker.
   [Link 3] will appear on the readout.

Note: The number linked in steps 1 through 5 can also be stored in secret memory as stated in the "Secret Memory".

1. When a set of linked numbers which includes a secret number has been stored in memory address enter the three-digit security code, press [RCL], memory address and then [SEND] to place the call. [Link 1] will appear on the readout, and the first linked number will be called as shown in step 6 above.
   If the secret number is not included in the linked number, you need not enter the three-digit security code in the above operation.
2. To complete the call, continue operations as shown in steps 7 and 8.

SCRATCH-PAD DIALING

This feature permits you to enter a number to be redialed (or store a number in memory) while engaged in a conversation.

SCRATCH-PAD DIALING WITHOUT KEYING TONES

This feature permits you to activate scratch-pad memory without annoying key tones over the circuit.

1. Press [FUNC], then key [9], then enter a phone number. [Tone] will be displayed for 5 seconds. The microphone circuit will remain active, but the tones will not be heard.
2. If necessary, press [STO], then enter the memory address.
3. To exit the Scratch-pad Mode, press [FUNC],then key [9] again or turn the unit off.

DATA TRANSMISSION

AUX I/O JACK on the phone cradle can be used for a FAX machine, Modem or other Data Transmitting equipment. Specifications of AUX I/O JACK are as follows.

JACK	: RJ11
Impedance	: 600 ohms, Balance
Level	: Input nominal−17dBV
	: Output nominal−32dBV

Manual Mode

To set Data Transmission Mode

After a call is in progress (answered or sent), press [FUNC], then [SEND]. [Data] will appear on the readout. Then the transmission and receiving audio will be switched to the AUX I/O JACK.

To Exit Data Transmission Mode

Press [FUNC], then [SEND], or terminate a call. The indication [Data] on the readout will go out.

Automatic Mode

1. Before leaving the car, press [FUNC], then key [2] (more than 1 second). The display shows [A.D/T]. The unit will remain on (in stand by mode) even after the ignition is turned off. If necessary, lock the unit.
2. When a call is received, the unit will automatically make the connection, then the transmit and receive audio will be switched to the AUX I/O JACK.
3. This mode is automatically deactivated in the following cases:
   1) When the ignition switch is turned back to "on" or "accessory" position.
   2) When the safety timer is expired. (Refer to "Safety Timer".)
   3) When [FUNC], then key [2] are pressed again.
   4) When Calls in Absence Indicator feature is activated.

CALL TIME DISPLAY

This feature automatically records the elapsed time per conversation. The talk time of the last call, cumulative talk time, and the number of calls can be displayed on the readout.
The timers can also be cleared if necessary.
With beep tones you can be notified of the approximate talk time (NAM Option) in approximately 60 second increments.

To Display the Talk Time of the Last Call

1. Press [RCL], key [✱] then [1].
   The talk time of the last call will be displayed on the readout for 5 seconds.
   While in a conversation, the talk time of a call in progress will be displayed, and updated each sec-

ond. The display format is as follows.
[01m25] ···1 min. and 25 sec.

To Display the Cumulative Talk Time

1. Press [RCL], key [✱] then [2].
   The cumulative talk time will be displayed on the readout in minute format for 5 seconds.
   [18m] ···18min.

To Display the Number of Calls

1. Press [RCL], key [✱] then [3].
   The number of calls will be displayed on the readout for 5 seconds. The display format is as follows.
   [86c] ···Received or placed 86 calls

To Clear the Timer

1. Press [CLR], then enter the three-digit security code.
2. Press [STO], key [✱] then [1].
   The timers will be cleared, and the count for the cumulative talk time and the number of calls will start from zero.

One Minute Beep (NAM Option)

During conversation, you can be notified of the approximate talk time by tones for the first five minutes (a short monotone signal will sound every minute and a double beep tone will be heard after approximately 5 minutes).

A/B SYSTEM SELECTION

This feature permits you to select the system you need to use. The system that you are registered with is the preferred system, and your home system.

1. Standard Mode
   When you turn the unit on, the unit remembers the last position of the A/B system selected, and will start to scan the radio frequency channels of that selection.
   If you want to confirm the current mode, press [FUNC], key [0] then [4]. Status indicator shows the current mode. To return the unit to the standard mode, press [FUNC], key [0] then [0] again. Status indicator shows [STD]. The unit will scan the preferred system channels.
   If unable to find an acceptable preferred channel, the unit switches to scan the non-preferred channels.

2. Preferred System Only Mode
   Press [FUNC], key [0] then [1]. Status indicator shows [PRF]. The unit will scan the preferred system only and prevents switching over to the non-preferred system.
3. Non-preferred System Only Mode
   Press [FUNC], key [0] then [3]. Status indicator shows [N-PRF]. The unit will scan the non-preferred system only.
4. Home Only Mode
   Press [FUNC], key [0] then [2]. Status indicator shows [Home]. You can place or receive calls only within your home area.

Note(1): The [ROAM] indicator lights as follows.
Lights continuously; When the unit is in the preferred system in another city.
Flashes; When the unit is in the non-preferred system.

Note(2): The [NO SVC] indicator flashes when the unit is requesting service but not in the requested service area.

SYSTEM INHIBIT (NAM OPTION)

This feature permits you to inhibit (by NAM Option) cellular systems, or Roam Systems you do not want to use, even when in that service area.
The [NO SVC] indicator flashes, if your A/B switch is selected to any system that is inhibited.

MULTIPLE CITY REGISTRATION

Some cellular users find it beneficial to register their phone in multiple cities, rather than rely on "roam". The multiple city registration feature permits you to reprogram from the handset, the different phone numbers for the cities in which you are registered. Each programmed phone number will be designated as your home system.

Press [CLR], then enter the new system ID number (5 digits) followed by the corresponding phone number

(10 digits). Please include your area code.
You must register your unit with the carrier in order to get both the system ID number and your phone number.

Press [FUNC] then key [6]. Your new phone number will be displayed on the readout. (Holding down [6], to display your new system ID number.)

Note(1): System ID number and phone number can not be programmed during a call.
Note(2): Calls are placed or received using only the programmed phone number, in use at the time of call.

LAST RESCAN SID INDICATOR

This feature permits you to recall the last system identification accessed by your phone.
Press [RCL], key [✱] then [9].
The last rescan SID is displayed on the readout for 5sec. The display format is as follows:

					S	I	D		
					0	0	0	2	0

If the [NOSVC] indicator is on, the display will show

-	-	-	-	-

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RADIO FREQUENCY (RF) CHANNEL INDICATOR

If necessary, you can see the RF channel status in which your unit is operating.

1. Press [RCL], key [✱] then [4].
   The RF channel number, RSSI, SAT color code, and transmitting power level will be displayed on the readont. The display format is as follows:

					C	1	2	3	
R	1	8	7		S	0		P	2

   C123··· RF channel number
   R187··· RSSI value
   S0····· SAT color code
   P2····· Transmitting power level
2. When on a call, the display will update when a handoff occurs.
3. The display will remain on the readout until you manually reset it by pressing any key.

AUTOMATIC HORN ALERT (NAM OPTION)

This feature, when wired to the vehicle, indicates the incoming call by sounding the horn or by flashing the lights. When on, the Automatic Horn Alert will automatically set each time that the car ignition is turned off.

1. Press [FUNC], then key [2] momentarily. [Horn] will appear on the display and the Automatic Horn Alert mode will be on. Each time the ignition is turned off, this feature will be set automatically.
2. When a call is received, the unit will either sound the horn or flash the lights five times, depending on how the horn alert wire has been connected to the car.
3. This mode will be off in the following cases :
   1) When [FUNC] and then key [2] are pressed again.
   2) When the Calls in Absence Indicator mode is set.
4. This feature is deactivated in the following cases:
   1) By turning the ignition to on or accessory position.
   2) When the safety timer expires.

Note(1): Deactivate this mode if it is not being used as this feature remains activated even if the power source is turned off.
Note(2): The power source is automatically turned off to prevent the discharge of the car battery when the safety timer expires.

AUTOMATIC CALLS IN ABSENCE INDICATOR

This feature indicates the number of incoming calls while you are out of the car. When the Automatic Calls in Absence Indicator is on, it will be activated when the ignition is turned off.

1. Press [FUNC], then key [3]. [Call] will appear in the display. However, this mode is not activated unless the ignition switch is turned off.
2. Turn the ignition switch off and leave the telephone switch on. If necessary, lock the unit.

3. When calls are received, the unit will indicate them by flashing [CALL] and [XX] (XX being the number of calls) alternately in the display.
4. This mode will be off in the following cases :
   1) When [FUNC] and then key [3] are pressed again.
   2) When the Automatic Horn Alert is set.
   3) When the Auto Answer Fax Data is set.
5. This feature is deactivated in the folowing cases:
   1) By turning the ignition to on or accessory position.
   2) When the safety timer expires.
6. The [CALL] and [XX] will continue flashing until any key is pressed or the handset is lifted.

Note(1): Deactivate this mode if it is not being used as this feature remains activated even if the power source is turned off.

Note(2): The power source is automatically turned off to prevent the discharge of the car battery when the safety timer expires.

SAFETY TIMER (NAM OPTION)

Your timer is set for 8 hours. You can change it from 1 hour up to 31 hours for Horn Alert, Calls in Absence Indicator and Automatic Mode of Data Transmission features.

FUNCTION REVIEW

This feature shows you which numbered keys to use for different FUNC/RCL key functions.

To review the function menu:

Press [FUNC] for about one second.

Scroll the menu up or down, using the [#] or [*] key respectively.

The display information will appear as follows.

DISPLAY		FUNCTION
[Lock]	[FUNC 1]	Lock
[Horn]	[FUNC 2 <1s]	Horn
[A.D/T]	[FUNC 2 >1s]	Auto. Data Transmission
[Call]	[FUNC 3]	Number of Calls in Absence Indication
[A. Ans]	[FUNC 5]	Automatic Answering
[Mute]	[FUNC 8]	Mute
[Tone]	[FUNC 9]	DTMF Tone Mute
[ABsys]	[FUNC 0 0-4]	A/B System Selection
[HF]	[FUNC 7 1-2]	Hands-free Adjustment
[Timer]	[RCL * 1-3]	Call Timer
[RF CH]	[RCL * 4]	RF Channel Indication
[Light]	[RCL * 5]	Backlighting Control
[Alert]	[RCL * 6]	Alert Volume Control
[Silen]	[RCL * 7]	Silent Incoming Calls
[R.SID]	[RCL * 9]	Last Rescan SID Indication
[<ID>]	[RCL * *]	Present SIDH + Phone Number
[Data]	[FUNC SEND]	Manual Data Transmission
[Alpha]	[FUNC ∧]	Alpha Mode
[Secrt]	[FUNC STO N]	Secret Memory
[Restr]	[XYZ FUNC#7]	Call Restricted Mode
[ID]	[<ID>FUNC 6]	Multiple City Registration

Note (1) : N = Repertory Memory Address (01 through 99)

Note (2) : XYZ = Three-digit Security Code

Note (3) : <ID> = System ID number + Own Phone Number

IMPORTANT SAFETY INFORMATION

Please read and follow these cautions carefully:
TURN OFF your unit in an explosive atmosphere (near a fuel pump, blasting area, etc.).
DO NOT operate your unit when someone is within two feet (0.6 meters)of your antenna.
DO NOT dial when your vehicle is moving in states where this action is illegal (this is not a prudent practice, even where it is legal).
DO NOT permit untrained personnel to operate the unit.

WARNING

The following offenses can be punished by fine, imprisonment, or both:

- Using obscene, indecent or profane language.
- Using the unit to give off false distress calls.
- Wiretapping or otherwise intercepting a telephone call unless that person has first obtained the consent of the parties participating in the call.
- Making anonymous calls to annoy, harass or molest other people.
- Charging to an account without authorization to avoid payment for service.
- Refusing to yield a party line when informed that it is needed for an emergency call (It is also unlawful to take over a party line by stating falsely that it is needed for an emergency).